



U.S. Department  
of Transportation

Pipeline and  
Hazardous  
Materials Safety  
Administration

400 Seventh Street, S.W.  
Washington, D.C. 20590

**APPROVAL CA2003110002**

**(FIRST REVISION)**

**ISSUED BY THE COMPETENT AUTHORITY OF THE UNITED STATES**

**Expiration Date: 11-30-2008**

1. **APPROVAL HOLDER:** U.S. Department of Defense  
Military Surface Deployment and  
Distribution Command, DOA  
661 Sheppard Place  
Fort Eustis VA 23604-1644
2. **REGULATORY AUTHORITY:** 49 CFR § 172.102(c)(1), Special  
Provision 60 - Approval of chemical oxygen generators for  
transportation.
3. **SYNOPSIS:** U.S. Department of Defense is authorized to offer  
for transportation chemical oxygen generators as "Oxygen  
generator, chemical, UN3356" in accordance with the  
provisions of this approval.
4. **BASIS:** This approval is issued in response to U.S.  
Department of Defense's application dated November 3, 2003.
5. **PERIOD OF VALIDITY AND CONDITIONS OF APPROVAL:** This  
approval does not provide relief from any requirements of  
the Hazardous Materials Regulations except as stated  
herein. This approval is valid until the posted expiration  
date above or until terminated by the Associate  
Administrator for Hazardous Materials Safety.
  - a. **Approved Materials:** Oxygen generators and protective  
breathing equipment that are authorized by the Associate  
Administrator to be described as "Oxygen generator,  
chemical, 5.1, UN3356" may be transported under the terms  
of this approval. Spent oxygen generators (§172.102(c)(1),  
Special Provision 61) are not authorized to be packaged or  
transported under the terms of this approval.

b. Safety Controls:

(1) Oxygen generators, other than protective breathing equipment, must incorporate one of the following means of preventing inadvertent actuation:

(a) Mechanically Actuated Devices:

(i) Two pins, installed so that each is independently capable of preventing the actuator from striking the primer.

(ii) One pin and one retaining ring, each installed so that each is independently capable of preventing the actuator from striking the primer.

(iii) A cover securely installed over the primer and a pin installed so as to prevent the actuator from striking the primer and cover.

(b) Electrically Actuated Devices: The electrical leads must be mechanically shorted and the mechanical short must be shielded in metal foil.

(c) Devices with No Means of Actuation Attached: Devices that have no actuating mechanism must have a protective cover over the primer to prevent actuation from external impact.

(2) Oxygen generators installed in protective breathing equipment (PBE - oxygen generators, hoods, etc.): A finished PBE must contain a pin installed so as to prevent the actuator from striking the primer, and be placed in a protective bag, pouch, case or cover such that the PBE is fully enclosed in such a manner that the protective bag, pouch, case or cover prevents unintentional actuation of the oxygen generator.

c. Testing: Oxygen generators, without packaging, must be capable of withstanding a 1.8 meter drop onto a rigid,

non-resilient, flat and horizontal surface, in the position most likely to cause damage, with no loss of contents or actuation.

d. Preparing Packages for Transportation by Motor Vehicle, Rail Freight, and Cargo Vessel:

(1) Oxygen generators, oxygen generators installed in equipment, or PBEs must be packaged in accordance with § 173.212 or ATA Specification No. 300 - Packaging for Airline Supplies, published by the Air Transport Association of America;

(2) If an oxygen generator is inside a piece of equipment which is sealed or difficult to determine if an oxygen generator is present, for example, a closed sealed passenger service unit, then a warning sign must be visibly attached to the piece of equipment stating the item contains an oxygen generator (example: **THIS ITEM CONTAINS AN OXYGEN GENERATOR**); and

(3) Each package, and overpack if used, must be plainly marked with the approval number and the following statement:

**THIS PACKAGE IS NOT AUTHORIZED FOR TRANSPORTATION ABOARD AIRCRAFT**

e. Preparing Packages for Transportation by Cargo Aircraft:

(1) Oxygen generators, oxygen generators installed in equipment, or PBEs must be packaged in accordance with 49 CFR § 173.212 or Packaging for Airline Supplies - ATA Specification No. 300, published by the Air Transport Association of America.

(2) If an oxygen generator is inside a piece of equipment which is sealed or difficult to determine if an oxygen generator is present, for example, a closed, sealed passenger service unit, then a warning sign must be visibly attached to the piece of equipment stating the item contains an oxygen generator (example: **THIS ITEM CONTAINS AN OXYGEN GENERATOR**).

(3) Each package must meet the following additional requirements when a generator in the package is actuated:

(a) Other generators in the package may not actuate,

(b) The packaging materials may not ignite, and

(c) The outside surface temperature of the package may not exceed 100°C.

(4) Each package, and overpack if used, must be plainly marked with the approval number and the following statement in close proximity to the "CARGO AIRCRAFT ONLY" label:

**THIS PACKAGE IS NOT AUTHORIZED FOR TRANSPORTATION  
ABOARD AIRCRAFT IF IT HAS BEEN OPENED**

6. **MODES OF TRANSPORTATION AUTHORIZED:** Motor vehicle, rail freight, cargo vessel, and cargo aircraft only.

7. **SPECIAL PROVISIONS:**

a. A copy of this approval must be maintained at each facility from which shipments of oxygen generators are offered for transportation under the terms of this approval.

b. Any person who receives a package covered by this approval may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this approval and the HMR.

c. If a package that was prepared for transportation by cargo aircraft is opened subsequent to its offering for transportation, then that package, if otherwise unaltered, may only be transported by surface modes. Any marking or label (including a "CARGO AIRCRAFT ONLY" label) indicating that it may be offered for transportation by air must be removed or covered.

8. **GENERAL PROVISIONS:**

a. Failure by any person to comply with the terms and conditions of this approval and the Hazardous Materials Regulations, 49 CFR Parts 171-180, may result in the modification, suspension or termination of that person's authority to use this approval. Failure to comply may also subject that person to penalties prescribed by 49 U.S.C. §§ 5123 and 5124. This approval may be modified, suspended or terminated in its entirety if that action is justified in light of changes in circumstances or additional information not available when this approval was issued. Unless immediate modification, suspension or termination is necessary to avoid a risk of significant harm to persons or property, before action is taken, that person will be notified and provided with an opportunity to show why the proposed action should not be taken.

b. Each "Hazmat employee," as defined in 49 CFR § 171.8, who performs a function subject to this approval must be provided training on the requirements and conditions of this approval in addition to the training required by 49 CFR §§ 172.700 through 172.704.

c. Any person operating under the terms of this approval must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.

d. The Competent Authority Approval number for this approval has been reformatted from a seven-digit number to a 10-digit number. The previously issued seven-digit number and the current 10-digit number are interchangeable. If your company is in possession of stamps, labels, or any other pre-printed materials with the seven-digit number, you may continue to use these items until your current supply is exhausted. When new labels, stamps or any other pre-printed materials are printed, the new 10-digit number must be used.

Issued at Washington, D.C.

Dated: **May 11, 2005**

Approved by:



601 Robert A. McGuire  
Associate Administrator for  
Hazardous Materials Safety

Address all inquiries to the Associate Administrator for  
Hazardous Materials Safety, Pipeline and Hazardous Materials  
Safety Administration, Department of Transportation, Washington,  
D.C. 20590. Attention: PHH-32.